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Economist Model of Rational Man

Nobel winner Friedman stated as follows:

1. Perfectly defining the problem,
2. Knowing *all* relevant alternatives,
3. Identifying *all* criteria,
4. Accurately weighting all the criteria according to his/her goals,
5. Accurately assessing each alternative on each criterion and
6. Accurately calculating and choosing alternative with the highest value.

Is everyone rational ?..Emotional?

Bounded Rationality (1)

- Nobel winner Simon [1957] suggests that individual is *bounded* in its rationality in decision making.
- People rely on a number of heuristic principles or rules of thumb, in making decision...This is a process, not outcomes.
- We shall explore on these heuristics often lead to *biased* decisions and sometimes result in *serious, systematic errors*.

We should learn some implications for our dynamic pricing and managerial strategy.

Bounded Rationality (2)

Nobel winner Simon [1957] exposts that people make decisions with deficiencies :

1. Lack of info. : e.g. alternatives, criteria, etc.,
2. Time and cost constraints for a full search,
3. Imperfections of their own perceptions,
4. Ability to retain only a small amount of info. &
5. Limitation of human intelligence.

These may lead decision making deviating from the econ. view of rationality.

Q&A : Framing & Game of Chance

Question: Including Feb. 29, there are possible birthdays in a year.

Consequently, a group would need to contain 367 members in order to be absolutely sure that at least two people shared the same birthday.

How many people are necessary in order to be 50% certain ?

Framing and Consumer Behavior

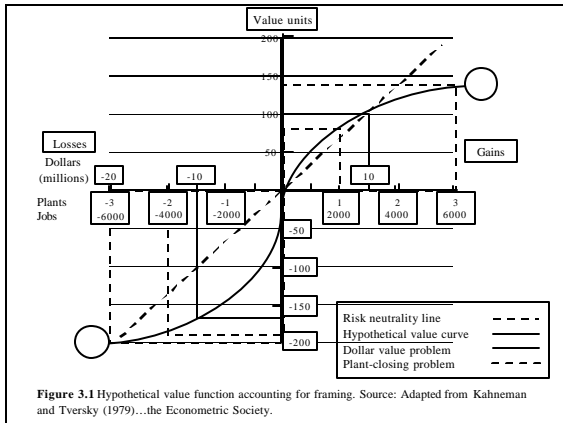
Framing :

- Buyer frequently form frames of reference when making buying decision.
- These frames of reference in turn influence how buyer respond to price and product information.

Framing and Prospect Theory

Framing :

- Based on Prospect Theory by KT [1979]
- Prospect theory argues that people evaluate purchases in terms of gains and losses, relative to a reference point.
- Managers can then influence purchase decision how they frame price and benefits.



Q&A: Where to buy Gas ?

Station 1: Sells gasoline for baht 10.30 per liter, and gives a baht 0.10 discount if the buyer pays with cash.

Station 2: Sells gasoline for baht 10.20 per liter, and charge a baht 0.10 surcharge if the buyer pays with a credit card.

Explanation: Where to buy Gas ?

Station 1 set *a reference point* at baht 10.30 and then rewards buyers who pay cash; that is *a gain* relative to the reference point.

Station 2 first establishes *a reference point* at baht 10.20 and then penalizes buyers who use credit cards; *a loss* relative to the reference point.

This is a contrary to the economic theory that predicts the gain and loss of the *equal size* are valued *indifferently*.

Prospect Theory : Basic Idea

- Value is associated *not* with actual levels of consumption, but with *anticipated changes* in well being.
- Buyer assesses prospective decision outcomes (prospects) by *mentally* categorizing them as either *gains* or *losses* relative to *reference point*.

Economic vs. Prospect Theory (2)

Economic Theory – Gains and losses of equal size treat the same

Ex : \$100 gain = \$ 100 loss

Prospect Theory – Loss judged more painful than a gain of equal value as pleasurable.

Ex : Loss of \$100 is more *painful* than a gain of \$100.

Economic vs. Prospect Theory (2)

Economic Theory – Expected utility of uncertain outcome is weighted by its probability.

Prospect Theory – Asymmetric Value

1. We value initial gains from a reference point more highly than the subsequent gain.
2. We value initial losses more negatively than subsequent losses, as evaluated in term of reference point.

Prospect Theory Implication (1)

1. Losses are weighted more than gains. [*ceteris paribus*]
2. If people perceived they are in the **gain** domain, they will act **conservatively** or take less chance.
3. If people are in the **loss** domain, they tend to take **more risk**.

Prospect Theory Implication (2)

4. Increasingly larger **gains** are incrementally **less pleasurable**. (10 to 20 great; 110 to 120 not as great)
5. Increasingly larger **losses** are incrementally **less painful** (and smaller losses are almost painful as slightly larger losses)
6. The displeasure associated with **losing** a certain amount (e.g. of money) is generally greater than the pleasure associated with **winning** the same amount (e.g. of money).

Q & A: Which do you choose ?

Examples :

Which do you choose ?

- a) Receive \$50 or
- b) 55% chance of receiving \$100;
45% chance of earning nothing.

Which do you choose ?

- c) Lose \$20 or
- d) 20% chance of losing \$100 ;
80% chance of losing nothing.

Answer: I do choose rationally...

Rationale for Answers

- Recall from prospect theory, that people are risk adverse (e.g. conservative or risk averse) when considering gain.
- In contrast, people are more naturally inclined to risk a loss than to pay even the expected value of avoiding it.

Three Ways to Frame Purchase Decisions

1. Structure transactions to reflect gains and avoid losses [e.g. give **discount** vs. premium]
2. Frame decision outcomes in terms of gains or losses [e.g. do *not* discuss benefits of buying the product, but discuss the consequences of **NOT** buying the product.]
3. Frame by **bundling** gains and losses
 - 3.3.1 un-bundle gains ; 3.2 bundle losses,
 - 3.3.3 bundle small losses with larger gains,
unbundled smaller gain from larger losses

Framing and Reference Price Formation

1. Reference Price : A general expectation of a price level that seems reasonable and fair
2. Exercise : Name reference price for following items :
 - 2.1 Hotel room at the Hyatt Regency Bangkok
 - 2.2 Price of room at Swissotel Bangkok
 - 2.3 Price of room at 'Khoa San' Road

Strategic Anchor (1)

A piece of paper 0.1 millimeter thick is folded in half. It is folded in half again ...After 100 folds, how thick will it be ?

- Without actually calculating give a quick estimate of the following product
- $1 \times 2 \times 3 \times 4 \times 5 \times 6 \times 7 \times 8 =$
- Without actually give a quick estimate of the following product :
- $8 \times 7 \times 6 \times 5 \times 4 \times 3 \times 2 \times 1 =$

Strategic Anchor (2)

- The idea is that when a person must make a judgment, he or she starts with an initial, approximate judgment – an 'anchor'.
- This judgment gets the person 'in the ballpark'.
- Then, in view of other considerations, the person arrives at a final judgment by adjusting away from the initial assessment.

Five Categories of Information that Influence Buyers' Reference Prices

1. Current Price Influences,
2. Past Price Influences,
3. Purchase Context Influences,
4. Price of similar items and
5. Price considering cost of ingredients, time to make it yourself

1. Current Price Influences (a)

- Adding a **premium** product to the product line may *not* necessarily result in overwhelming sales of the premium product itself.
- It does, however, *enhance* buyer's **perceptions** of lower priced products in the product line.
- And influences low end buyers to trade up to higher priced items.

1. Current Price Influences (b)

If you are a **low end seller**, should you be concerned with the entry of premium price brand ?

Suggested Reference Prices

- State a price charged previously
- State a price charged by a competitor
- State suggested retail price

1. Current Price Influences (c)

Consider the following airline prices seen on internet for round trip leaving 4/05/01 and return 4/06/01. The web fares are

BA : London to Paris \$410 ; AF : Paris to Prague \$ 689

LUF : Nice to Prague \$717 ; AF : London to Nice \$788

Given above prices, answer following question.

1. What price would you expect to pay to fly from London to Prague ?
2. What is the most you would pay ?
3. What is the fair price ?

2. Past Price Influence (a)

- Past price paid has a particularly ***strong*** influence on the reference price.
- Past Price is more likely to be ***recalled*** as a frame of reference than past prices that were observed ***but not paid***.

2. Past Price Influence (b)

Implications for Dynamic Pricing :

- Numerous ***small*** price increases for ***frequently*** purchased items more likely to be accepted than are infrequent large increases.
- Need to ***always state actual price*** and discount from that; otherwise, low promotional price can establish low reference prices for judging the value of later purchases.

3. Purchase Context Influences

(a)

You are lying on the beach on a hot day. All you have to drink is warm water.

For the last hour you have been thinking about how much you would enjoy a nice cold bottle of your favorite imported beer.

A companion gets up to make a phone call and offers to bring back a beer.

The only near by place where beer is sold is a small, rundown grocery store.

3. Purchase Context Influences

(b)

He asks what the maximum price you are willing to pay.

If the price is higher,

he will not buy it.

What price would you tell him ?

3. Purchase Context Influences

(c)

Implications :

Use context as a frame of reference that makes the price seem fair or reasonable.

E.g. This weekend getaway experience in Bangkok costs less than a cup of coffee in Hong Kong – just 90 cents (usd) per day.

3. Price of Similar Items

Name reference price for following items :

2.1 Hotel room at the Hyatt Regency, Bangkok

2.2 Price of room at Swissotel, Bangkok

2.3 Price of room at 'Khoa San' Road,
Bangkok

5. Price considering cost of ingredients (a)

Framing Price Differences

Looks at the two pairs of price below and quickly answer the question : For which pair of prices is the lower price more of a bargain ?

Higher Price	Lower Price
First Pair \$0.80	\$ 0.75
Second Pair \$0.93	\$ 0.79

Your Answer _____

5. Price considering cost of ingredients (b)

Perceptions of Odd Pricing Ending

- Buyers use left most digitals in a price and round up the form a quick reference point to evaluate the actual price against.

- Previous example : second pair seems to have better discount (or gain to the buyer)

Note first pair : $8-7 = 1$; second pair $9-7 = 2$; if figure same in first column, then look at second column)

Impacts on Revenue Mgt. (a)

Impacts of Revenue or Yield Management

Assume that you go to make a reservation at the business class hotel you are loyal to and ...

you find that they are charging you \$50 per night *more* than they usually do because they have only a few rooms left.

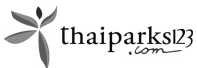
Impacts on Dynamic Pricing.

(b)

Please, answer each of the following questions based on this knowledge. (1 = Strongly disagree to 10 Strongly agree)

- 50.3 % The next time I made a reservation at this hotel, I would be more likely to ask about the rate
- 31.7 % The next time I came to this city I would check the hotel rates at other sources
- 10.3% My business travel policy would not allow me to stay at this higher rate
- 2.7 % This would never happen as my company as a negotiated rate
- 1.0% My loyalty with the hotel would remain unchanged.
- others % It is alright for the hotel to increase their rates in this situation.

All in family



www.A2ZeBusiness.com family members
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Reference

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* Available for free download at www.pongsak.hoontrakul.com

QED

[Quod Erat Demonstrandum]

I love emails.

Any comments are welcome at
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